Although the numbers are lower, the rib loss graphs show the same trend as the surface rust graphs. These lower numbers were expected since it requires more corrosion activity to remove ribs than it does for the rust to appear only on the surface. Many of the same trends observed for the surface rust graphs are seen in the rib loss graphs. For instance, at 0.0% initial chloride, many of the specimens with the corrosion inhibitor products seem to exhibit less rib loss than the specimens without the corrosion inhibitors. Again, as this rises to 1.5%, the effectiveness of the corrosion inhibitor products diminishes. As the initial chloride level moves up to 3.0%, the rib loss again tends to decrease just as surface rust did at this point. These graphs also exhibit a similar averaging effect for the values of all specimens. Again, this peculiar phenomenon may be due to the realization of threshold chloride content level prior to the 3.0% level, as discussed previously. Once again it can be determined that at this level of initial chloride contamination, no corrosion inhibitor products are effective.

As with the surface rust assessment, it is useful to compare the mid-section rib loss graphs for the same specimens over time stepped intervals. Figure 4.34 shows the time step data for rib loss of the 0.0% specimens.

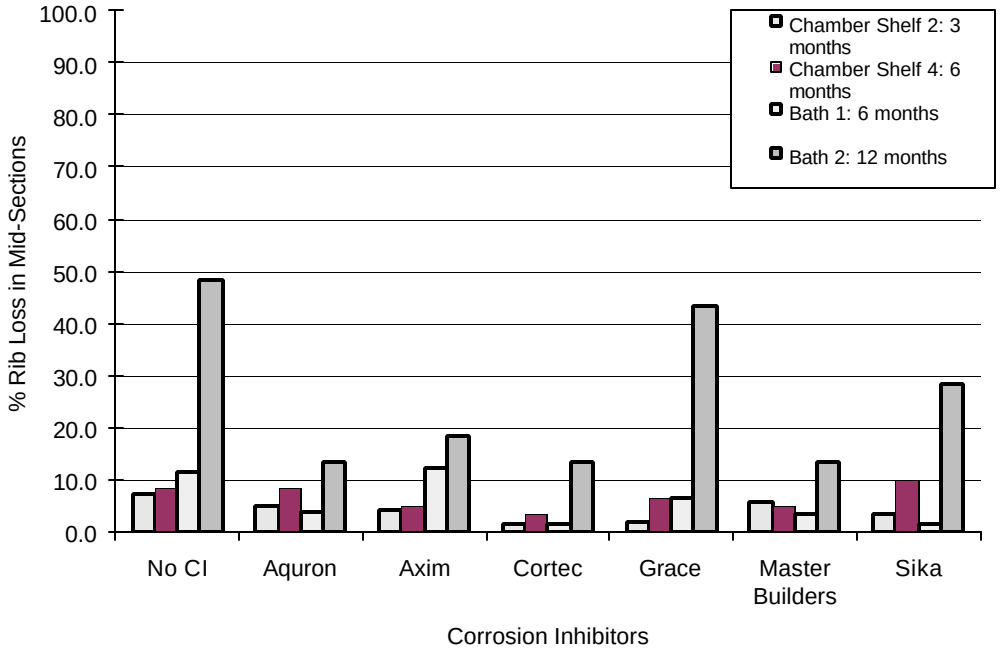

Figure 4.34 – Time Step of Rib Loss for 0.0% Chloride, Pre-Cracked Specimens

The time step rib loss graphs show similar trends to those of the time step surface corrosion graphs. Most specimens show an increase in rib loss as the time steps progress at the lower levels of initial chloride contamination. However, some differences do exist. Unlike the surface corrosion graphs, there are few products that exhibit an increase in rib